

5112963



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D2500-1-190
Job Sheet 181173



Part No: D2500-1-190

Job Qty: 82 ea

90 AT

Part Name: Ext'n - I' Beam Tube 4"



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 7/23/18

Job Tracking No:

Due Date: 9/13/18

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG D2500 REV H IPP: G 02.09.05 Added DSK 066 KJ/RF IPP: H 07.07.06 rev G dwg EC IPP Rev: I as per
dwg revH DD 10.02.23 verified by EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	82 pcs		9/13/18	0.00	0.00	Purchasing		AT 8/09/24
110	Packaging	82 pcs		9/13/18	0.00	0.00	Packaging2		AT 13/09/24
120	QC	82 pcs		9/13/18	0.00	0.00	QC6		AT 13/09/24
130	Packaging	82 pcs		9/13/18	0.00	0.00	Packaging3		DAS 13-09-26
140	QC21-SA	82 Ea		9/13/18	0.00	0.00	QC21		DAS SEP 25 2018

Part Op 100 - Issue P/O:

a) Extrude as per Dwg D2500 b) Material: 6061-T6 (QQ-A-200/8) c) Minimum yield
Descriptions: tensile strength = 35 ksi d) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation = 8% f) Order at 190" long
g) Bon L Canada Inc. tool # 897105 h) To be packed per DSK 066 i) Pull test to ASTM standard B221 required. j) Material
certification is required

110 - Ensure material certification is attached

120 - Check Pull test per Dwg D2500 for compliance page attached. Check hardness with Webster tester

130 - LOCATION : LG002

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2500-1-190P	Extrusion Round 4" 205	82 pcs (1 ea)	100-Purchasing	5112903

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D2500-1-190P	82	0	0

Part Specifications

Specifications could not be found.

Plex 7/23/18 1:22 PM dart.lavoie.chantal

SPECIFICATION CONTROL DRAWING

D2500-1-XXX EXTRUSION & D2500-3-XXX EXTRUSION

NOTES:

1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

MINIMUM TENSILE YIELD STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D2500-1 = 0.143 lb/in, D2500-3 = 0.066 lb/in
- 8) FOR D2500-1 PART NUMBER IS D2500-1-XXX WHERE XXX IS CUT LENGTH (EX. D2500-1-190 IS 190" LONG). D2500-1 EXTRUSION MANUFACTURED FROM:
 - A) BON L DIE # 897105 -> PREFERRED
 - B) CARADON MIDEAST DIE # PAH-28030
 - C) CARADON MTL DIE # MH-18868
- 9) FOR D2500-3, PART NUMBER IS D2500-3-XXX WHERE XXX IS CUT LENGTH IN INCHES (EX. D2500-3-100 IS 100" LONG). D2500-3 EXTRUSION MANUFACTURED FROM:
 - A) CARADON INDALEX DIE # MS-18867

RELEASED
2010-02-02
MP

H	REDRAW & REFORMAT DWG; CORRECT BON L DIE # TYPO (ZN B8-1), ADD AMS & ASTM MAT'L OPTION (ZN D8-1), TOLERANCES NOW PER CARADON DWG (SHT 2)	CP	09.07.16
G	ADD DIE NUMBERS & 'DIMS IN INCHES' NOTES	PH	07.04.17
F	CHANGE MAT. TO 6061-T6	DS	97.09.29
E	CHANGE MATERIAL TEMPER	DS	96.10.24
D	ADD MATERIAL PROPERTIES	DS	96.10.07
C	ADD D2500-3 WEB	BW	96.04.26
B	CHANGE INTERNAL WEB	DS	96.03.24
A	NEW ISSUE	DS	96.03.19
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. H
MFG. APPR.	<i>[Signature]</i>	D2500	SHEET 1 OF 2
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	EXTRUSION	NTS
DATE	09.07.16	COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

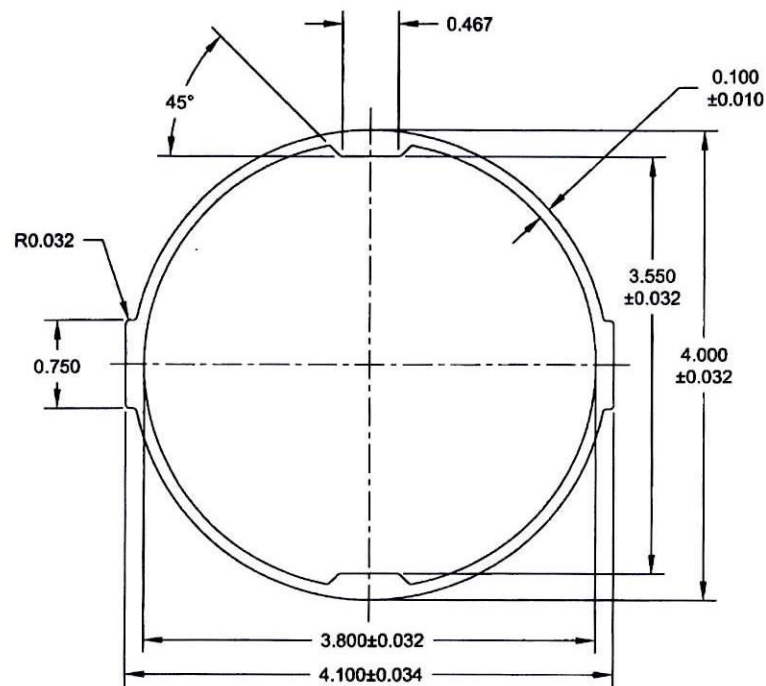
8 7 6 5 4 3 2 1

D

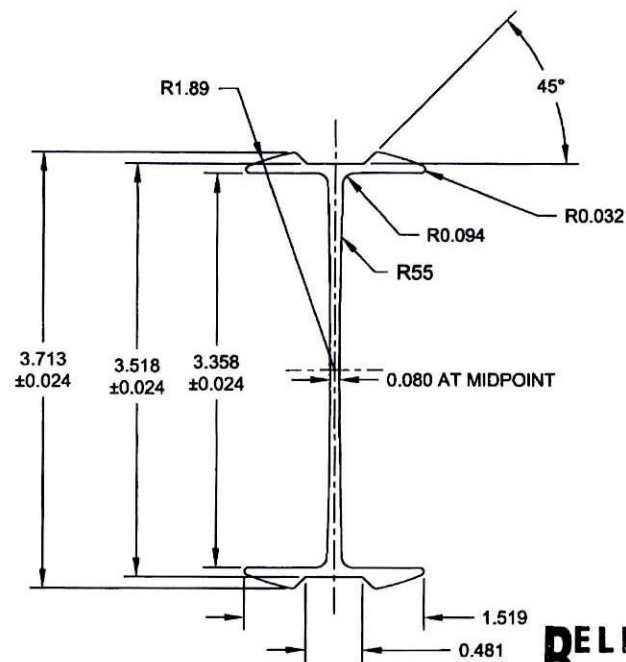
C

B

A



D2500-1



D2500-3

RELEASED
2010-02-02
MP

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D2500	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		EXTRUSION	NTS
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8 7 6 5 4 3 2 1



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO040574**

Supplier: SIG001-VC
Signature Aluminum Canada Inc.
C/O T10322C
PO Box 4488, STN A
TORONTO
ON
M5W 4H1 Canada
Phone: 905-427-6550
Fax: 905-427-2246

PO No: PO040574

PO Date: 7/23/18

Due Date: 9/13/18

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com



Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments: quote no: 07232018-005

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1 ✓ AT	181173	D2500-1-190P		Extrusion Round 4" 205 : EXTRUDE AS PER DWG D2500 REV. H DIE #897105-2 EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE EXTRUDE AS PER DWG D2500 REV. H DIE #897105-2	Firmed	-	9/13/18	82 pcs	0 pcs 90%	82 pcs	\$72.93537/pcs	\$5,980.70 M 18/09/24

Grand Total: \$5,980.70

Order Notes



1850 Clements Road, Pickering Ontario, Canada L1W 3R8 INVOICING AND COMPANY LOCATION

Phone: (866) 587-5780 Fax: (905) 427-2207

Visit us at www.signaturealuminum.comSIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

PACKING LIST

PACKING LIST DATE / DATE DU BORDÉREAU

09-21-18

PACKING LIST NUMBER / N° DE

039400

SALES ORDER NUMBER / N° DE COM

133069

ACCT# 46024

SHIP TO / EXPÉDIÉ À

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

SOLD TO / VENDUE À

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

ERMS / FREIGHT

PP

REFER TO
THESE NUMBERS ON
ALL CORRESPONDANCEREFEREZ-VOUS A CES
NUMEROUS POUR TOUTE
CORRESPONDANCE

LOCATION	TRAILER NUMBER / REMORQUE Nombre	SALESMAN / VENDEUR	CREDIT REP / REP DU CRÉDIT	SALES REP / REP. DES VENTES
PIC		042		R. BLAIS
CUSTOMER ID / ID DU CLIENT	ORDER DATE / DE LA COM	CUSTOMER PO NUMBER / CLIENT PO Nombre	JOB / FICHER	FIELD SALES REP / REP REGIONAL DES VENTES
46024	07/23/18	PO040574		
		BILL OF LADING NUMBER / NO. DE CONNAISSEMENT	CARRIER / TRANSPORTEUR	CUST SERVICE REP / REP. SERVICE CLIENTELE
		039400	KANA RACINE	
			G.ATTENBOROU	S1S

ITEM NO. / NUMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison
001	2,262	LB		DAA-897105-2	6061 T6		4	2,445	2,326	LB	
	1,026	KG		D2500-1-190P	190.0000 IN			1,109	1,055	KG	
Y	82	PC			Cut (+): 0.1180 Cut (-): 0.0000	Min: -10 % Max: 10 %			90	PC	

						905509 / 448872	1	624	593		23 PC
						905509 / 448873	1	573	547		21 PC
						905509 / 449380	1	624	593		23 PC
						905509 / 449381	1	624	593		23 PC

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping packing lists and signed and dated below by customers authorized representatives. No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping packing list were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on our website.

Page 1 of 1

4	2,445	2,326	LB
	1,109	1,055	KG
		90	PC
TOTALS			

ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

CUSTO

DATE OF DELIVERY

DRIVER

**SIGNATURE ALUMINUM CANADA**1850 CLEMENTS RD
PICKERING, ON L1W 3R8**CERTIFICATE OF COMPLIANCE**

Cert Date	Cert No.	Sales Order	Page
09/16/2018	5496079	133069	1
Cust PO	B/L No	Lot	Date
PO040574	039400	905509	09/21/18

Sold To	Ship To
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA

Item No	Part No	Item Description	Cust Part
001	DAA-897105-2	190" Mil 6061 T6	D2500-1-190P
Gross Weight	2,445 LBS		
Net Qty	2,326 LBS 90 PCS 4 PKGS		
Specification	Die Desc		
AMS-QQ-A-200/8 & ASTM B221-08			

Mechanical Tests:

Tensile	Yield			
MPA / KSI	MPA / KSI	% Elongation	Conductivity	HRE
319.3 / 46.3	269.0 / 39.0	10.2	N/A	92

Chemical Analysis:

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	V	Zr
0.65	0.24	0.23	0.05	0.91	0.07	0.12	0.01	0.01	0.00

*This Material is Made in Canada**This Material is RoHS Compliant*

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Gooder
Quality Manager
Signature Aluminum Canada Inc

ISO 9001/TS16949 Registered Company

Visit us at www.signaturealum.com

Rev A

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D2500-1-1908

PO / BATCH NO.: P0040574/S/12963

DATE: 18/09/24

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 4"

QUANTITY RECEIVED: 90x

THICKNESS RECEIVED: 4"

QUANTITY INSPECTED: 90x

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	<u>AMS-QA-A-2008</u>
CORRECT THICKNESS	☒ Y N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	<u>Mt. 905509</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AM</u> DATE: <u>18/09/24</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

Supplier Non-Conformance Report

Reviewed
DQA:
Date:

Printed on: Wednesday, September 26, 2018

Details			
Raised Date 9/26/2018	Status Open	Owner Aboud, Robert	Number NCR18-6959
Target Date 10/26/2018	Standard		Severity
Process Inspection		Audit	
Raised By Person Duval, Patrick	Raised Against (Department or Supplier) Signature Aluminum Canada Inc.		Fault Category Material
Details PO040574 D2500-1-190 job 181173 was found with multiple indentation thru out the length of the extrusion.			
Keywords		Product D205-634/D2500-1-190	
Document		Root Cause	
Closed By	Closed Date	Resolution	

Root Cause			
Target Date 10/6/2018	Owner Downing, Eric M	Closed Date	Closed By
Details			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	

Corrective Action			
Target Date 10/6/2018	Owner	Closed Date	Closed By
Details			

Actions

Number	Owner	Target Date	Completed Date
Details		Response	

Implementing Corrective Action			
Target Date 10/6/2018	Owner Aboud, Robert	Closed Date	Closed By
Details			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	
1	Duval, Patrick	9/26/2018	
Inspect complete order and set aside the defect ones.		Quarantine qty 9 until further notice.	
2	Aboud, Robert	10/26/2018	
contact supplier for corrective action			

Verification & Review			
Target Date	Owner Downing, Eric M	Closed Date	Closed By
Details			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	